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# ECHINODERMA

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†*Heterolampas* with *H. maresi*, MORTENSEN 65 p. 393.

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†*Holaster clypeatulus* sp. n. Cretaceous Japan, NISIYAMA Short Pap. Inst. Geol. Paleont. Tôhoku Univ., Sendai No. 2 pp. 35–36 figs. 1–3, pl. iv figs. 8–9.—*H.* with *H. nodulosus*, MORTENSEN 65 p. 47.

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†*Hexura* gen. n. for type *H. weitzii* sp. n. Devonian S. Africa, SPENCER S. Afr. J. Sci. Johannesburg 46 p. 300 figs. 1-5.

*Odontaster*, MANN 56 p. 196 fig. 58.

*Ophiactis hirta* p. 124, *profundi* p. 124, *resiliens* p. 124 fig. 14, FELL 27.

*Ophiarthrum elegans*, CLARK 15 p. 66.

†*Ophiacina* gen. n. for type *O. intercarinata* sp. n. Cretaceous Rügen I., MÜLLER Geologica Berlin 5 p. 33 pl. ii figs. F 1-5.

*Ophiocentrus novae-zealandiae*, FELL 27 p. 124.

*Ophioceres huttoni*, FELL 27 p. 123.

*Ophiocoma erinaceus* p. 64, *insularia* var. *variegata* p. 65, *O. pica* p. 64, *scolopendrina* p. 64, CLARK 15.—*O. bollonsi*, FELL 27 p. 123 fig. 10.

†*Ophioderma arkonensis* p. 32 pl. i figs. C 1-5, pl. iii figs. P, V, *rugensis* p. 32 pl. i figs. A 1-5 spp. n. Cretaceous Rügen I., MÜLLER Geologica Berlin 5.

*Ophiomastix annulosa*, CLARK 15 p. 65.

*Ophiomyxa brevirima* p. 121 fig. 2, *duskiensis* p. 121, FELL 27.

*Ophionephthys stewartensis*, FELL 27 p. 124 fig. 13.

*Ophionereis fasciata* p. 124 fig. 12, *novaezealandiae* p. 124, FELL 27.

*Ophiopezella spinosa*, CLARK 15 p. 66.

*Ophiopteris antipodum*, FELL 27 p. 123 fig. 9.

*Ophioscolex prolifer*, FELL 27 p. 121.

*Ophiothrix longipeda*, CLARK 15 p. 64.—*O. aristulata* p. 123 fig. 11, *oliveri* p. 123, FELL 27.

*Ophiozonella megaloplax*, FELL 27 p. 123.

*Ophiozonoida picta*, FELL 27 p. 123.

*Ophiura rouchi*, MANN 56 p. 203 fig. 65, p. 237 fig. 90, p. 252 fig. 99.

†*Ophiura tener* sp. n. Cretaceous Rügen I., MÜLLER *Geologica Berlin* 5 p. 32 pl. i figs. B 1-5, pl. iii figs. K, O, S.

*Pectinura cylindrica* p. 123, *gracilis* p. 123, *maculata* p. 122 fig. 7, FELL 27.

†*Schizospondylus* gen. n. for type *S. jasmundiana* sp. n. Cretaceous Rügen I., MÜLLER *Geologica Berlin* 5 p. 32 pl. i figs. D 1-5.

†*Transspondylus* gen. n. for type *T. bubnoffi* sp. n. Cretaceous Rügen I., MÜLLER *Geologica Berlin* 5 p. 33 pl. ii figs. E 1-5, pl. iii figs. L, R, U.

### CRINOIDEA

†Crinoid stems and plates, CHRONIC 14 p. 172 pl. xxxv figs. 6-12.

*Aglometra incerta*, FELL 30 p. 82 fig. 13.

†*Allagecrinus copani* sp. n. Carboniferous U.S.A., STRIMPLE Bull. Amer. Paleont. Ithaca 32 1949 pp. 271-272 pl. xxxvii figs. 1-7.

†*Allosocrinus* gen. n. p. 267 for type *A. bronaughi* sp. n. Carboniferous U.S.A., STRIMPLE Bull. Amer. Paleont. Ithaca 32 1949 pp. 268-269 pl. xxxvi figs. 1-4.

†*Ampelocrinus erectus* sp. n. Carboniferous U.S.A., STRIMPLE Bull. Amer. Paleont. Ithaca 32 1949 pp. 266-267 pl. xxxvi figs. 5-6.

†*Anemetocrinus ardrossensis* pl. vii figs. 3-4, 6, *biserialis* p. 24 pl. vii figs. 1-2, 5, 8-9, *covensisi* pl. vii fig. 7, *pen-tonensis* pl. vii fig. 10, WRIGHT 108.

†*Antedon* sp., BALAYOINE 3 p. 49 pl. ii B figs. 1-2.

†*Apographocrinus arcuatus* sp. n. Carboniferous U.S.A., STRIMPLE Bull. Amer. Paleont. Ithaca 32 1949 pp. 256-258 fig. 1, pl. xxxiii figs. 1-10.

*Argyrometra mortenseni*, FELL 30 p. 84 fig. 3.

†*Ascocystis* see sub Cystidea.

†*Bactrocrinus fusiformis*, SIEVERTS-DORECK 90 p. 82 figs. 2-4.

†*Barycrinus ribblesdalensis*, WRIGHT 108 p. 1 pl. i figs. 4-10.

†*Cadoocrinus timaricus*, YAKOVLEV 111 p. 93 fig. vi.

*Charitometra basicurva* p. 84 fig. 2, *incisa* p. 84 fig. 10, FELL 30.

†*Cibolocrinus punctatus*, PLUMMER 75 p. 53 pl. xi figs. 9-10.

†*Cleioocrinus regius*, UBAGHS 98 p. 119 fig. 7.

*Comanthus benhami* p. 82 fig. 12, *novaezealandiae* p. 82, FELL 30.

†*Ctenocrinus mesodevonicus* nom. n. for *C. gracilis* Wachsmuth & Springer 1897 non *C. gracilis* Jaekel 1895, UBAGHS Bull. Mus. Hist. nat. Belg. 21 1945 p. 2 footnote 5 [omitted in error from Zool. Rec. 82 1945.]

†*Delocrinus extraneus* pp. 275-276 pl. xxxix figs. 1-3, *separatus* pp. 276-277 pl. xxxix figs. 4-7, spp. n. Carboniferous U.S.A., STRIMPLE Bull. Amer. Paleont. Ithaca 32 1949.

*Diplocrinus alternicirrus*, FELL 30 p. 81 fig. 11.

†*Endelocrinus petalosus* sp. n. Carboniferous U.S.A., STRIMPLE Bull. Amer. Paleont. Ithaca 32 1949 pp. 274-275 pl. xxxviii figs. 1-4.—*E. tumidus* subsp. *spinosus* subsp. n. Carboniferous U.S.A., STRIMPLE J. Paleont. Menasha, Wis. 24 p. 112; *E. tumidus* holotype designated, Id. p. 112.

†*Ethelocrinus texasensis*, PLUMMER 75 p. 53 pl. xi fig. 8.

†*Exocrinus* gen. n. p. 259 for type *E. multirami* sp. n. Carboniferous U.S.A., STRIMPLE Bull. Amer. Paleont. Ithaca 32 1949 pp. 260-262 pl. xxxiv figs. 5-7, pl. xxxv figs. 4-5; *E. desmoinesensis* p. 262 pl. xxxiv figs. 3-4, 8, *pallium* pp. 264-265 pl. xxxv figs. 6-8, *virgilensis* pp. 263-264 pl. xxxv figs. 9-10, *wanni* pp. 262-263 pl. xxxiv figs. 1-2, pl. xxxv figs. 1-3, spp. n. Carboniferous U.S.A., Id.

†*Fifeocrinus tielensis*, WRIGHT 108 p. xxx text-fig. 1.

*Glyptometra inaequalis*, FELL 30 p. 84 fig. 4.

†*Hemiindocrinus* sp., YAKOVLEV 110 p. 897 fig. 1 II.

†*Hexacrinus elongatus*, SIEVERTS-DORECK 90 p. 80 fig. 1.

*Hypalocrinus naresianus*, FELL 30 p. 81 figs. 7-8.

†*Hypocrinus schneideri*, HAAF 36 p. 891 figs. 1-4.

†*Indocrinus* phylogenetic relationship with *Ulocrinus*, YAKOVLEV 110 p. 897.—*I. crassus* fig. iv, *rimosus* fig. v, YAKOVLEV 111 p. 93.



†*Lasanocrinus altamontensis* sp. n. Carboniferous U.S.A., STRIMPLE J. Paleont. Menasha, Wis. 24 pp. 573–574 pl. lxxvii figs. 5–8.

†*Lodanella mira*, GROSS 34 p. 40 fig. 1.

†*Marsipocrinus concavus*, YAKOVLEV 111 p. 93 fig. vii.

*Metacrinus nodosus* p. 81, *wywillii* p. 81 fig. 9, FELL 30.

†*Ophiurocrinus hebdensis* sp. n. Carboniferous England, WRIGHT Mon. Carb. Crinoidea Pal. Soc. Lond. pp. 23–24 pl. vi figs. 4–5; *arbiglandensis* p. 22 pl. vi fig. 8, *beggi* p. 22 pl. vi fig. 6, *dactyloides* p. 20 pl. vi figs. 1–3, 7, Id.

†*Parisocrinus radiatus*, WRIGHT 103 p. 17 pl. v figs. 1, 5, 9.

†*Parulocrinus*? sp., CHRONIC 14 p. 172 pl. xxxv figs. 5–6.

*Pentametrocrinus semperei*, FELL 30 p. 81 fig. 6.

†*Platycrinus*? sp., PLUMMER 75 p. 88 pl. xix fig. 14.

†*Plaxocrinus omphaloides*, PLUMMER 75 p. 97 pl. xxi fig. 15.

†*Poteriocrinites robustus* sp. n. ex Austin MS. Carboniferous England, WRIGHT Mon. Carb. Crinoidea Pal. Soc. Lond. pp. 10–11 pl. v figs. 2–3; *crassus* p. 2 pl. ii figs. 2, 4–8, 12–17, pl. iii fig. 7, pl. v fig. 4, *isacobus* p. 9 pl. v fig. 6, *P.*? *magnus* p. 9 pl. iii fig. 4, *P. plicatus* p. 7 pl. ii figs. 10–11, pl. iv, *quinquangularis* p. 11 pl. v figs. 7–8, 10, Id.—*P.* sp., LAKEMAN 49 p. 104 fig. 3.

†*Proindocrinus pizowski*, YAKOVLEV 110 p. 897 fig. 1, III–IV.

†*Rhabdocrinus swaledalensis* sp. n. Carboniferous England, WRIGHT Mon. Carb. Crinoidea Pal. Soc. Lond. pp. 16–17 pl. i figs. 1–3; *pentonensis* p. 16 pl. ii fig. 3, *scotocarbonarius* p. 13 text-figs. 2–4, pl. ii figs. 1, 9, 18, pl. iii figs. 1–3, 5–6, 8–21, Id.

*Saracrinus varians*, FELL 30 p. 81.

†*Scyphocrinus excavatus* var. *schlotheimi* fig. i, var. *schluteri* fig. ii, *S. mariannae* fig. iii, YAKOVLEV 111 p. 93.

†*Spyridiocrinus* p. 108 fig. 8 (pars), *S. cheuxi* p. 109 figs. 2–6, pl. vii figs. 1–6, *S. tirlensis* p. 109 fig. 1, UBAGHS 98.

*Stephanometra indica protectus*, *S. spicata*, *spinipinna*, CLARK 15 p. 62.

*Stiremetra breviradia*, FELL 30 p. 82 fig. 5.

*Thalassometra echinata*, FELL 30 p. 82 fig. 1.

*Thaumatometra alternata*, FELL 30 p. 84 fig. 14.

†*Timorocidaris sphaeracantha*, LAKE-MAN 49 p. 100 figs. 1–2, 4–8.

†*Ulocrinus caverna* sp. n. Carboniferous U.S.A., STRIMPLE Bull. Amer. Paleont. Ithaca 32 1949 pp. 273–274 pl. xxxviii figs. 5–8.—*U. globulus*, YAKOVLEV 110 p. 897 figs. 1 I, 2.

†*Utharocrinus fabulosus* pp. 572–573 pl. lxxvii figs. 1–4, *facilis* pp. 571–572 pl. lxxvii figs. 11–12, 18–20, *habitus* p. 572 pl. lxxvii figs. 13–16, *spinus* p. 573 pl. lxxvii figs. 9–10, 17, spp. n. Carboniferous U.S.A., STRIMPLE J. Paleont. Menasha, Wis. 24.

†*Vicetiametra* gen. n. for type *V. albertinii* sp. n. Paleogene Italy, MALARODO Riv. ital. Palaeont. Milano 56 pp. 6–11 pl. i figs. 1–5.

## †MACHAERIDIA

*Plumulites andouilleensis* sp. n. Ordovician France, CHAUVEL Mém. Soc. géol. min. Bretagne 5 1941 pp. 259–262 fig. 99, pl. iv figs. 12–14; *fraternus* p. 262, *P. spp.* p. 264 fig. 100, Id.

## †CYSTIDEA

*Aristocystis* p. 50 with *bohemicus* p. 54 figs. 17–24, pl. v fig. 2, cf. *bohemicus* p. 64 pl. iii fig. 3, *A.*? *desideratus* p. 66, *A.*? *potens* p. 67 fig. 25, pl. v fig. 5, *A. sinica* p. 69, *subcylindricus* p. 65 pl. v fig. 3, CHAUVEL 11.

*Ascocystis*? *cuneiformis* sp. n. Ordovician France, CHAUVEL Mém. Soc. géol. min. Bretagne 5 1941 pp. 118–119 fig. 47.

*Calix lebescontei* p. 83 pl. i fig. 3, *purkyni* p. 82 pl. i fig. 4, *rouaulti* p. 78 figs. 27–30, pl. iii fig. 4 with var. *buchoti* p. 81 fig. 31, *C. sedgwicki* pp. 29, 75 figs. 4–13, pl. i figs. 1–2, pl. ii figs. 3–4, *C. spp.* pp. 85–86 figs. 32–33, pl. ii figs. 5–6, CHAUVEL 11.

*Carpocystis soyei*, CHAUVEL 11 p. 87 fig. 34.

*Craterina armoricana* sp. n. Ordovician France, CHAUVEL Mém. Soc. géol. min. Bretagne 5 1941 pp. 109-112 figs. 44-45, pl. iii fig. 6; *bohémica* p. 99 fig. 39, pl. vi fig. 1, *idealis* p. 108, *moneta* p. 102 figs. 40-43, pl. iii fig. 5, pl. v fig. 1, Id.

*Echinoencrinites senckenbergii*, REGNÉL 78 pp. 259-267 figs. 2-3.

*Hippocystis batheri* sp. n. Ordovician Bohemia, CHAUVEL Mém. Soc. géol. min. Bretagne 5 1941 pp. 70-74 fig. 26, pl. v fig. 4.

*Pachycalix halli*, CHAUVEL 11 p. 47 figs. 14-16, pl. ii figs. 1-2.

*Tholocystis* gen. n. for type *T. kolihai* sp. n. Ordovician France, CHAUVEL Mém. Soc. géol. min. Bretagne 5 1941 pp. 88-98 figs. 35-36, 37a, 38a-e, pl. iii figs. 1-2.

*Tiaracrinus soyei*, CHAUVEL 11 p. 115 fig. 46.

#### †CARPOIDEA

*Anatiferocystis* gen. n. p. 206 for type *A. barrandei* sp. n. Ordovician Bohemia, CHAUVEL Mém. Soc. géol. min. Bretagne 5 1941 pp. 207-209 figs. 84-85, pl. vi figs. 10-12; *A. barrandei* var. *minuta* var. n. Ordovician France, Id. pp. 209-210 fig. 86, pl. iv fig. 5.

*Anomocystis ensifer*, CHAUVEL 11 p. 217.

*Balanocystis lagenula*, CHAUVEL 11 p. 210 figs. 87-88, pl. iv figs. 6-7.

*Lagynocystis pyramidalis*, CHAUVEL 11 p. 200 figs. 77-83, pl. iv figs. 3-4.

*Mitrocystella barrandei* p. 177 figs. 63-64, 65c, 66, pl. vi fig. 3, *incipiens incipiens* pp. 151, 174 fig. 62, pl. vi fig. 2, *incipiens miloni* pp. 151, 176 figs. 54-59, pl. iii figs. 7-9, pl. iv fig. 1, CHAUVEL 11.

*Mitrocystis osekenensis* sp. n. Ordovician Bohemia, CHAUVEL Mém. Soc. géol. min. Bretagne 5 1941 pp. 195-196 fig. 74, pl. vi fig. 9; *mitra* with vars. *dobro-*

*tivaensis* pp. 187-189 fig. 71a, pl. vi fig. 7, *hanusi* pp. 190-194 fig. 72, pl. vii figs. 1-7, *kloučeki* pp. 189-190 fig. 71b, pl. vi fig. 8, and *major* p. 187 pl. vi fig. 6 vars. n. Ordovician Bohemia, Id.; *M. lata* p. 194 fig. 73, *mitra mitra* p. 182 figs. 67-70, pl. vi figs. 4-5, *M. riadanensis* p. 196 fig. 75, pl. iv fig. 2, cf. *riadanensis* p. 198 fig. 76, *M. ?* sp. p. 199, Id.

*Placocystis bohemicus*, CHAUVEL 11 p. 215 fig. 89, pl. vii fig. 8.

#### †EDRIOASTEROIDEA

*Anglidiscus* gen. n. for type *Lepidodiscus fistulosus* Anderson 1939 Carboniferous England, REGNÉL Kungl. Fysio. Sällsk. Lund Forh. 20 20 p. 219 fig. 2.

*Lepidodiscus ephraemvianus*, REGNÉL 77 p. 2 fig. 1.

#### †BLASTOIDEA

*Codaster alternatus* p. 159 pl. xxvii figs. 3-10, 13-14, *americanus* p. 171 pl. xxviii figs. 17-18, 22-25, *pyramidatus* p. 167 pl. xxvii figs. 1-2, 11-12, 15-26, pl. xxviii figs. 14-15, 19, 26-34, *robustus* p. 170 pl. xxviii figs. 1-13, 20-21, *pyramidatus-robustus* transition form p. 164 pl. xxviii fig. 16, CLINE & HEUER 16.

*Pentremitella* gen. n. for type *P. osoleae* sp. n. Devonian Germany, LEHMANN N. Jahrb. Min. Geol. Paläont. Stuttgart Monatsh. B 1949 pp. 186-191 figs. 1-7.

#### INCERTAE SEDIS

†*Anatifopsis armoricana* pp. 267-268 fig. 101, pl. iv figs. 8-9, *guichenensis* pp. 269-270 pl. iv fig. 10, *traveusotensis* pp. 268-269 pl. iv fig. 11, spp. n. Ordovician France, CHAUVEL Mém. Soc. géol. min. Bretagne 5 1941; *A. sp.*, Id. p. 270. [Probably Cirrepede, but possibly Machaeride.]

